

Reversed 4-Channel RS-232 to RS-422 Converter

Model 422CFRC

B+B SMARTWORX

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PRODUCT FEATURES

- Converts 4 channels unbalanced RS-232 signals to balanced RS-422 signals
- Data rates up to 115.2 kbps
- Extends RS-232 line up to 1200 meters (4000 feet)
- RS-422 driver can drive ten RS-422 receivers in parallel
- Ten receivers can be connected to any one driver for use in multidrop systems

Model 422CFRC, 4-channel RS-232 to RS-422 converter, converts unbalanced RS-232 signals to balanced RS-422 signals. Model 422CFRC supports TD, RD, RTS and CTS. The RS-422 Standard uses a balanced voltage digital interface to allow communications of 90k bits per second on cable lengths of 1200 meters (4000 feet). Ten receivers can be connected to any one driver for use in multi-drop systems.

The polarity of the two RS-422 lines must be correct. With no data being sent, the RS-232 line should be negative and the RS-422 "A" terminal should be negative with respect to the "B" terminal. If your equipment uses a "+" and "-" naming scheme, in most cases, the "A" line will be connected to the "-", and the "B" line will be connected to the "+".

The RS-422 Standard wire recommended is number 24 AWG copper conductor, twisted-pair telephone cable with a shunt capacitance of 16 pF per foot. For long runs and/or high rates (more than 200k bits per second), it is recommended that the wires be terminated with a resistor at the receive end. The twisted pair usually used has an impedance of about 100 Ohms, therefore a 100 Ohm resistor is normally used for the termination. In no case should the resistive termination be less than 90 Ohms.

The RS-422 driver has the ability to drive ten RS-422 receivers, connected in parallel. A system of multiple receivers may require some experimentation with location and size of termination resistors, line lengths, grounding, etc.

The RS-422 Standard recommends that Protective Ground (pin 1) be connected to a good "green wire" ground. This may already be connected in your RS-232 equipment. Protective Ground and Signal Ground should be connected through to each end of the system and be connected to each other using a 100 Ohm 1/2 Watt resistor at one end only. If a shielded, twisted pair is used, the shield should be connected to Protective Ground.

ORDERING INFORMATION

MODEL NUMBER	DESCRIPTION	RS-232	RS-422
422CFRC	4-Channel, RS-232 to RS-422 Converter	DB25 Female	DB25 Male

ACCESSORIES

SMI6-12-V-P230-C1 - Power Supply, 12 VDC 6 Watt, 2.5mm Plug, International AC Input, International AC Blades

SPECIFICATIONS

TECHNOLOGY	
Data Rate	Up to 115.2K baud
Connectors	RS-232: DB25 female (DCE device) RS-422: DB25 male (EIA-530 pin outs)
Signals	TD, RD, RTS, CTS
Power Requirement	10 to 30 VDC @ 100 mA
REGULATORY APPROVALS	
FCC, CE	
2014/30/EU	Electromagnetic Compatibility Directive (RoHS)
2011/65/EU	Reduction of Hazardous Substances Directive (RoHS)
EMC	
EN 55022:2010+AC (Class B)	Information technology equipment. Radio disturbance characteristics. Limits and methods of measurement.
EN 55024:2010	Information Technology Equipment Immunity Characteristics. Limits and methods of measurement
EN 61000-4-2	ESD Immunity
EN 61000-4-3	Radiated Immunity
EN 61000-4-4	EFT/Burst Immunity
EN 61000-4-6	RF Conducted Immunity
MEANTIME BEFORE FAILURE (MTBF)	
MTBF	9554566 hours

All product specifications are subject to change without notice.

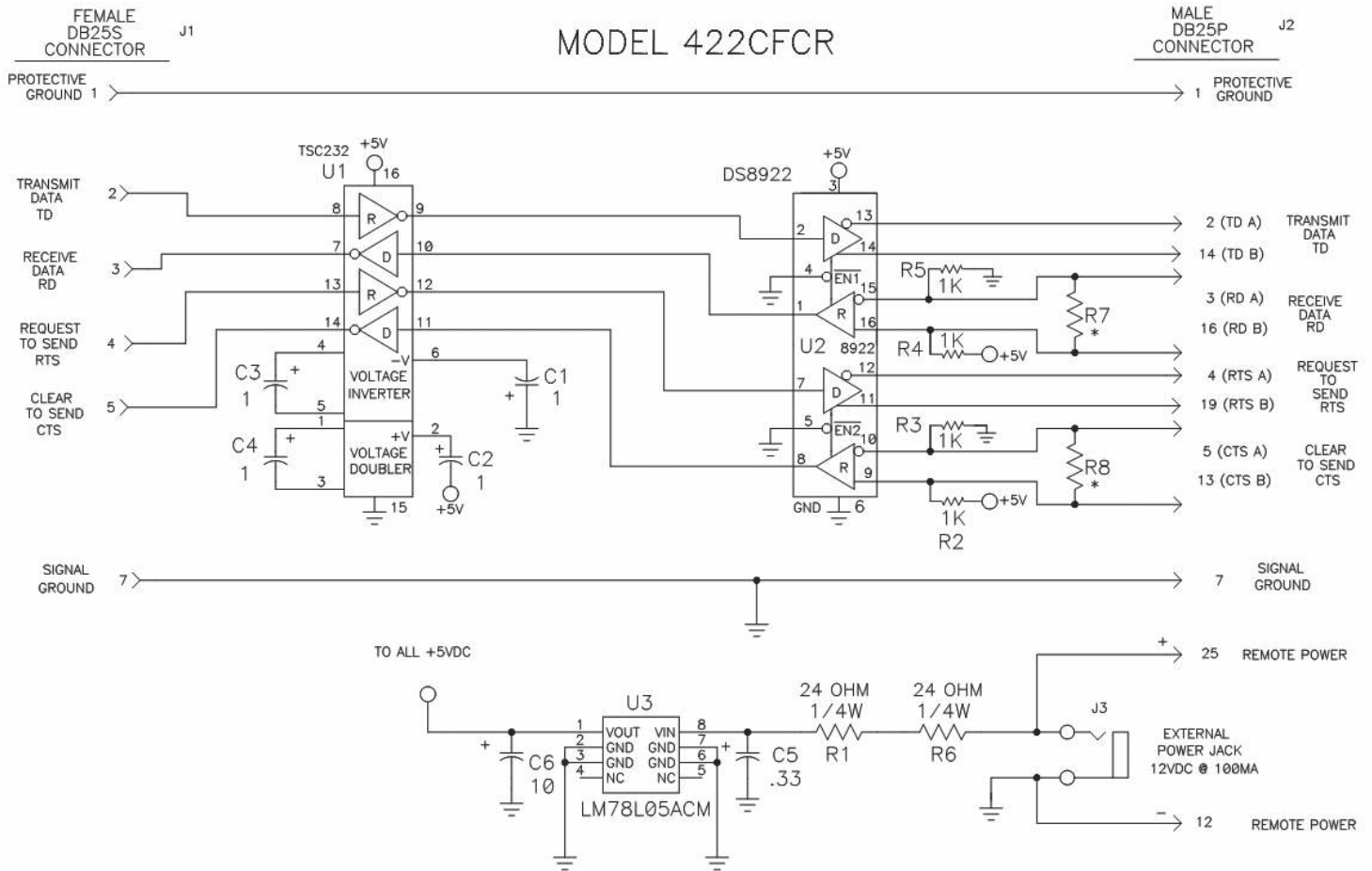
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SCHEMATIC



* OPTIONAL THROUGH HOLE TERMINATION